

**SCOPE OF WORK SUMMARY
FITZGERALD & HALLIDAY, INC.
ROUTE 7 CORRIDOR IMPROVEMENT PLAN
Phase 1
May 5, 2009**

INTRODUCTION

The purpose of the Route 7 Corridor Improvement Plan is to develop a pro-active plan to address current and long-range travel and community quality of life issues along Route 7 in southwestern Connecticut and to build on opportunities to enhance them. The study effort will focus on Route 7 within the Towns of Danbury, Ridgefield, Redding, and Wilton and does not include completed expressway sections in Norwalk and Danbury.

A review of issues concerning construction of a parallel Route 7 Expressway will **not** be included as part of this study. Analysis of transit oriented development (TOD) potential in the immediate vicinity of Cannondale Station will also not be included as part of this study.

SUMMARY OF TASKS

The scope of services is for a first phase of this corridor study effort and will include the following tasks:

- Task 1. Project Management and Administration
- Task 2. Technical Committee and Public Involvement
- Task 3. Project Initiation: Visioning, Base Mapping, and Data Acquisition
- Task 4. Existing Conditions and Trends
- Task 5. Future Conditions: Develop Preferred Land Use Scenario and Recommended Transportation System Improvements
- Task 6. Corridor Improvement Plan Development and Implementation Plan

The second phase of the scope of services for this corridor study effort is expected to be conducted separately and include:

- Development of an Access Management and Curb Cut Plan including an accompanying public outreach component
- Further development of the Transit Oriented Development opportunities identified in Phase 1.

Details of the study tasks are as follows:

TASK 1: PROJECT MANAGEMENT AND ADMINISTRATION

This is a joint project of the Southwestern Regional Planning Agency (SWRPA) and Housatonic Valley Council of Elected Officials (HVCEO) with SRWPA as the lead agency providing direct liaison with Fitzgerald & Halliday, Inc. (FHI) as the FHI Team conducts the study tasks.

The study will be conducted in a manner to encourage the participation of boards and commissions of the municipalities of Wilton, Ridgefield, Redding, and Danbury, CTDOT, the Norwalk Transit District (WHEELS), the Housatonic Area Regional

Transit District (HART), MetroPool, Metro-North, SWRPA, HVCEO, affected property owners, business interests, and the public during this planning process.

TASK 2: TECHNICAL COMMITTEE AND PUBLIC INVOLVEMENT

Public involvement will take place at three different levels for this study, which will provide the opportunity for broad interactive community involvement and in-depth stakeholder participation. The following describes each level of public, committee, and institutional involvement that will contribute to the preparation of the plan.

2. A. Study Technical Advisory Committee

The study will be guided by a Technical Advisory Committee (TAC). The TAC will consist of municipal representation, representatives from CTDOT, Wheels, and HART and may include representatives from area employers, property owners, neighborhood groups, and other stakeholders.

The FHI Team will meet with the STAC up to five (5) times over the study period at key project milestones to report findings and to seek input. The meeting agendas will approximately follow the summary below:

- STAC Meeting #1: Kick off meeting, vision, goals and objectives
- STAC Meeting #2: End of Task 4; Existing conditions issues and opportunities
- STAC Meeting #3: Future land use scenario discussion
- STAC Meeting #4: Selection of preferred land use scenario and review of transportation improvement matrix
- STAC Meeting #5: Presentation of Draft Corridor Improvement Plan and discussion

2. B. Technical Data Gathering and Discussions

The FHI Team will collect all available and existing technical data through review of existing planning and technical reports, existing GIS data, and available statistics on existing roadway, land use, and market conditions. The FHI team may conduct up to 6 data collection and discussion meetings with staff of relevant agencies to facilitate this process.

Topic-Area Focused Technical Working Meetings: The FHI team will also participate in up to four (4) topic-area focused technical working meetings. The purpose of these meetings will be to assess in more detail some specific technical aspects of the study and to facilitate coordination and communication. Major topic areas could include:

- Rail and bus services and integration;
- Traffic operations, safety and roadway issues and opportunities;
- Bicycle and pedestrians; and
- Land use, smart growth, and regulatory issues.

2. C. Public Information

Public Information Meetings: The FHI Team will provide technical support services for three (3) public information meetings. These meetings will occur at key project milestones and that may approximately follow the sequencing below:

1. Public Meeting #1: Vision Discussion, Issues and Opportunities: Brainstorming transportation and land use improvement ideas
2. Public Meeting #2: Presentation of Preferred land use scenario and supporting transportation recommendations

3. Public Meeting #3: Presentation of Draft Corridor Improvement Plan

Flyers/Publicity: The FHI Team will create a flyer providing publicity for public meetings, up to three times during the study process, with one for each of the three public meetings. In addition, FHI will develop a list of media outlets, and provide those media with electronic versions of meeting publicity in a format suitable for their use (such as press releases) three times during the study process. For local organizations identified as stakeholder groups for the study, FHI will coordinate and provide/offer them electronic versions of meeting publicity for their use in email blasts to their membership.

Project Website: The FHI Team will develop, maintain, and host a project website during the course of this project. It is assumed that the website will be active and maintained by The FHI Team for 24 months before it is transferred to SWRPA for future maintenance.

Intercept Interviews: The FHI Team will conduct one round of interviews in the form of a survey at select locations within the study to gain in-depth information about the operations of the corridor and corridor issues. The FHI Team will conduct these interviews by having a team spend one day driving the corridor and talking with people who commute, live, shop and run businesses along Route 7. This information will be used to verify and enhance data collected throughout the study process.

TASK 3: PROJECT VISIONING, BASE MAPPING, AND DATA ACQUISITION

3. A. Corridor Vision, Goals, and Objectives

The FHI Team will work with the TAC to develop short- and long-term visions for distinct portions of the study area. These visions will be used to establish a clear set of goals and objectives for the plan. The goals and objectives will act as a “guide” throughout the study process to help formulate recommendations. This process will be iterative; the initial vision may change based upon the research findings presented and iterative TAC input. The vision and goals will also be explored during the first public information meeting/workshop to get input from a broad range of study area stakeholders.

3. B. Study area Base Mapping

The FHI Team will develop digital base maps at several scales to respond to the need to visually display a variety of data types over a range of investigation areas.

3. C. Transportation Data Acquisition

Previous Reports and Studies: The FHI Team will collect data as described in Task 2.B and review them. The FHI Team will also obtain data and information being developed in the ongoing CTDOT Danbury Branch Line Study. This data will be used to frame existing and future conditions within the study area.

Currently Planned or Programmed Roadway Improvements: The FHI Team will review reports and plans associated with the study area provided by CTDOT, CT OPM, SWRPA, HVCEO, WHEELS, HART, Metro-North, the municipalities of Wilton, Redding, Ridgefield, Danbury, and others.

Signal Plans: The FHI Team will request and review signal plans from the Connecticut Department of Transportation and others for the signalized intersections within the study area.

Existing Traffic Volumes: Where possible, existing traffic volumes will be obtained from other sources and adjusted as appropriate. The FHI Team will review existing pneumatic Automatic Traffic Recorder (ATR) counts performed by municipal police departments from September 2008. The FHI Team will also conduct turning movement counts at up to fifteen (15) key intersections within the project area.

Existing ADT Volumes: The FHI Team will also obtain CTDOT baseline ADT volumes and peak hour turning movements, if available, for road segments within and near the study area. Data on historic volumes will also be obtained.

Crash Data: The FHI Team will obtain crash data provided by the Connecticut Department of Transportation and others for the latest available three- year period. This will include the most recent Traffic Accident Surveillance report, which will be used to identify high accident locations along the corridor. In addition, The FHI Team will review the Connecticut Department of Transportation's Traffic Accident Viewing System to obtain the most recent three years of accident data for intersections and roadway segments within the study area.

Signing and Pavement Marking Database: The FHI Team will utilize CTDOT's Photolog data and other sources to identify pavement marking and major regulatory and way-finding signage within the study area.

Inventory of Traffic Control Devices: The FHI Team will review the type and qualitatively assess the condition of intersection traffic control devices within the corridor.

Corridor Travel Time: Utilizing Global Positioning System (GPS) equipment: travel times will be monitored by SWRPA using the Average-Car or Floating Car Technique to determine space mean speeds along the study corridor. Four travel-time runs will be completed by SWRPA (two morning peak hours and two evening peak hours) during the work week.

3. D. Land Use and Development Data

Inventory Existing Land Uses: The FHI Team will map and establish existing land and building use characteristics within one half mile of Route 7 and identified potential TOD locations within the study area. Up to four (4) TOD areas may be identified (excluding the Cannondale area) for analysis as part of this study.

Vacant Land Development Analysis: The FHI Team will identify vacant and underutilized parcels within one-half mile of the Route 7 study area and also at each TOD area, and then make a determination as to their physical capacity to support future development.

Inventory Sewer and Water Utilities: The FHI Team will obtain information related to the capacity of public water and sewer utilities to support future development within the linear corridor and TOD areas. The FHI Team will review existing mapping of the sewer and water system including general line sizes/capacities and future programmed expansions of public sewer and water service areas within the study area.

Review Planning Studies and Development Regulations: The FHI Team will collect (as described in Task 2.B) and review those planning studies affecting the study area.

3. E. Pedestrian/Bicycle Network Data Collection

Inventory of Bicycle and Pedestrian Facilities: The FHI Team will field review bicycle and pedestrian facilities (sidewalks and pedestrian trails/pathways) within the study area. Locations of gaps in bicycle and pedestrian facilities, substandard, or discontinuous facilities will be noted. The FHI Team will also identify bicycle and pedestrian networks within or near the study area that have been established by municipalities, regional agencies or conservation organizations as well as any state designated bicycle routes. The FHI Team will create an inventory of points on Route 7 where existing walking trails cross or follow the corridor, including the Sugar Hollow Greenway.

3. F. Public Transit Systems

Transit Services: The FHI Team will review existing commuter bus and rail transit and paratransit facilities and services within the Route 7 study area.

Park-and-Ride Inventory: The FHI Team will examine parking utilization data for the park-and-ride facilities serving the study area to determine the existing capacity and current utilization of these facilities.

Rail Station Inventory: In 2001 HVCEO prepared an inventory of van, shuttle, reverse commute, and station car mobility options for the Branchville Station. This report will be updated by The FHI Team.

3. G. Community Appearance and Design

Inventory of Visual, Historic, and Architectural Resources: Aesthetic features of the study area will be described using site observations, reviews of existing documentation, and consultation with local historical organizations within the study area.

3. H. Environmental Factors

Environmental Database: The FHI Team will review available GIS data and mapping that illustrates the following information within and nearby the study area:

- Steep Slopes (Above 15% Grade),
- Wetland Areas, Waterbodies Or Watercourses,
- Flood Plains, Surface Water,
- Preserved Open Space, And
- Historically Significant Locations and Buildings.

TASK 4: EXISTING CONDITIONS AND TRENDS

Using data collected as part of Task 3, The FHI Team will analyze, describe, and evaluate existing conditions. The following subtasks will be conducted:

4. A. Transportation: Tasks will include;

- **Traffic Volumes:** The FHI Team will evaluate existing baseline ADT volumes to help the TAC understand the magnitude of total traffic flows within and nearby the study area.

- **Baseline Traffic Operations Analysis:** The FHI Team will utilize traffic data collected along with traffic volume networks developed under Task 3 to evaluate the signalized and unsignalized intersection capacity for the study area intersections analyzed.
 - Data will be exported to the latest SimTraffic Version, (Trafficware software) to produce graphic simulations for the purpose of supporting presentations as needed.
 - **Existing Traffic Volume Networks:** The FHI Team will review the turning movement counts. Turning movement diagrams will be utilized to create a representative traffic network. The FHI Team will coordinate with CTDOT's Bureau of Policy and Planning to have the existing traffic networks validated.
 - **Crash Analysis:** The FHI Team will provide a qualitative assessment of crash information along the Route 7 study corridor utilizing the most recent three years of data.
 - **Roadway and Geometrics Review:** The FHI Team will qualitatively assess the condition of Route 7 within the study area based on appropriate design recommendations set forth through CTDOT and AASHTO, including but not limited to pavement width, horizontal alignment, vertical grades, and stopping sight distance at major intersections or where the community outreach process identifies critical safety locations. Areas determined to have design deficiencies will be noted.
 - **Identify Transportation Deficiencies and Opportunities:** The FHI Team will draft a technical memorandum identifying Route 7 study area transportation deficiencies and opportunities.
- 4. B. Land Use and Market Conditions:** Tasks will include;
- **Existing Land Use, Public Utilities, and Municipal Zoning:** The FHI Team will analyze existing land use, existing and planned future public utility service levels, planned or programmed developments and current zoning regulations to assess and characterize current development trends within the corridor and the potential TOD areas.
 - **Existing Market Conditions:** The FHI Team will evaluate existing market conditions within the study area for various real estate development markets. The FHI Team methodology will be to develop current baseline data on existing markets from available data sources, including discussion with local economic development agencies for each municipality, and correlate that baseline information with demographic trend data.
 - **Assessment of Vacant & Under-Utilized Land Development Potential:** The FHI Team will prepare an analysis of vacant and underutilized parcels of land within the corridor and TOD study area(s) and make a determination as to the capacity of those parcels to support additional development.
- 4. C. Pedestrian and Bicycle Network Assessment**
- **Bicycle and Pedestrian Facilities:** The FHI Team will assess pedestrian and bicycle facilities within the study area based on data collected under Task 3

and consultations with state and municipal officials. The primary focus of this analysis will be to identify gaps in the bicycle and pedestrian system within the study area.

- **Qualitative ADA Compliance Review:** The FHI Team will provide a qualitative review of the study area pedestrian accommodations with regards to current ADA regulations. The primary focus of this analysis will be accessible curb ramps at intersections, accessible transit facilities, pedestrian considerations at signalized intersections, and major corridor ADA deficiencies.
- **Identify Pedestrian and Bicycle Deficiencies and Opportunities:** The FHI Team will draft a technical memorandum identifying existing conditions and noting deficiencies and improvement opportunities for pedestrians and bicycling.

4. D. Transit and Commuter System

- **Transit and Commuter Facilities:** The FHI Team will summarize the findings of the review of existing transit facilities and services, including service frequencies by route, train and bus stop locations, and ridership levels. The primary focus of this evaluation will be bus and rail service: location and frequency of service, accessibility of facilities, and commuter utilization.
- The FHI Team will incorporate the findings of CTDOT's Danbury Branch Line Study into the assessment of commuter rail facilities and service. The FHI Team will utilize this information to focus on the ability of existing and proposed rail service and station facilities within the study area to adequately serve existing and future commuter access and parking needs as well as park-and-ride facilities.
- **Assessment of Transit Deficiencies and Opportunities:** The FHI Team will identify any gaps in the existing provision of transit service and the pedestrian network providing access to transit facilities. Additionally, opportunities to improve the system will be identified.

4. E. Community Appearance and Design Assessment: Existing Conditions Review: The FHI Team will utilize the information developed in Task 3 and perform the following activities:

- Identify landscape or viewscape assets, deficiencies and concerns, and potential locations for gateway treatments and streetscape improvements.
- Identify existing open space resources or areas where there may be opportunity to provide meaningful public spaces
- Identify existing and potential visual amenities that will be considered when developing future transportation improvement recommendations.

This assessment will include a description of the general architectural or natural scenic character of various segments of the study area. Areas with a concentration of outstanding visual and/or historic resources will be noted.

4. F. Environmental Sensitivity Analysis: Based on the findings of Task 3, the FHI team will review the information collected and describe and map identified environmental constraints that may influence future land use and transportation resource decisions within the study area.

TASK 5: FUTURE CONDITIONS: DEVELOPMENT OF A PREFERRED LAND USE SCENARIO AND TRANSPORTATION SYSTEM IMPROVEMENTS

The goal of Task 5 is to develop a preferred land use scenario, assess the resulting traffic issues, and recommend transportation system improvements to support the preferred land use scenario. This task will also evaluate expected transportation conditions based upon continuation of current development trends (“Do Nothing”).

5. A. Assess Future Land Use Conditions

Currently Proposed Developments in the Corridor: The FHI Team will document the amount and type of development by location approved and programmed for development within or adjacent to the study area. In addition, FHI will develop a list of projects by location, type and amount in the development approval process pipeline with reasonable expectation of approval and construction by 2030.

Market Potential: The FHI Team will prepare estimates of the future market potential within the study area for the various real estate development markets as identified in Task 4. The estimates will be provided on a phased basis for the period between 2010 and 2030. The FHI Team will seek to identify such estimates for the Route 7 corridor in general and for any TODs in particular.

Property Reinvestment Assessment: The FHI Team will review certain developed commercial properties within the study area to assess what, if any, expansion or redevelopment potential they may possess. The FHI Team will focus on those properties proximate to transportation nodes, having local significance, being underutilized, with surplus property, and in asset classes identified for growth potential etc. Locations where market and existing land use conditions favor consolidation of parcels for development will be identified. The FHI Team will prepare estimates of future development potential that generally quantify and characterize the extent of potential growth.

Assessment of Future Development Potentials: Utilizing the data gathered in earlier tasks, The FHI Team will identify undeveloped parcels and buildings within the study area that are potentially available for future development or redevelopment and prepare estimates that characterize and quantify development that is likely to occur based upon market projections, corridor conditions, the availability of public utility services, and current zoning.

Identification of Major Traffic Generators: The FHI Team will review the inventory of buildings and parcels and future market trends to determine potential for future major traffic generators within the study area.

Transit Oriented Development (TOD) Potential: The FHI Team will review the findings of Task 4 and make an assessment of the potential to organize existing and future land and building use patterns to support TOD in the TOD opportunity areas identified in the foregoing tasks. Development of the TOD area concepts will be conducted in Phase 2 of this study effort.

5. B. Develop Preferred Land Use Scenario

The FHI Team, working with the TAC, will develop a preferred future conditions land use scenario for the study area portrayed for the years 2015 and 2030. The preferred land use scenario will be based on the vision statement for the corridor while incorporating the findings of the existing conditions assessment for land use and future market potential. To facilitate this process, The FHI Team will develop a list of performance measures that will be used to evaluate the various land use concepts along the corridor to achieve the vision and goals and place them in a matrix showing how each of the land use concepts rate against them.

Based on this, the FHI Team will work with the TAC to identify a preferred land use scenario. The “preferred land use scenario” will then be presented at the second public meeting for discussion and consensus building.

5. C. Transportation Impacts of Preferred Land Use Scenario

Traffic Projections - 2015 & 2030: Using the statewide travel demand model, CTDOT will provide The FHI Team traffic estimates for the No-Build and Preferred Build scenarios on the study area’s transportation network for the years 2015 and 2030. This analysis will incorporate anticipated improvements to transit services within the study area during that timeframe.

Traffic Operations Analysis- 2015 & 2030: The FHI Team will utilize the traffic volumes distributed to the highway network to analyze and describe the operating characteristics of Route 7 within the study area for the years 2015 and 2030.

Select Link Analysis: The FHI Team will work with CTDOT to identify the nature of trips at select locations along Route 7 to better understand the short- vs. longer-distant trip patterns of the future conditions scenarios. This information will be used to help the TAC comprehend order-of-magnitude changes in traffic volumes projected under the preferred land use scenario and to help The FHI Team better understand what transportation improvement alternatives are the most viable options.

Identification of Critical Traffic Areas: Based upon the distribution of future trips projections and the Operational Analysis, The FHI Team will provide an assessment of roadway, transit, and pedestrian safety and capacity issues within the study area for the years 2015 and 2030 for the future preferred land use scenario.

Identification of Transportation System Improvements – Based on the identification of the Preferred Land Use Scenario in Task 5.B and the analyses in the foregoing tasks, the FHI Team will prepare a package of complementary transportation system improvement recommendations to accompany the preferred development scenario. The FHI Team will develop a matrix of alternative transportation improvement and management strategies to facilitate evaluation and screening by the TAC. The FHI Team will also provide screening criteria to assist the TAC in selecting desired Plan recommendations.

These recommendations will be shared with TAC. They will review and select the desired components of the Corridor Improvement Plan for the Years 2015 and 2030. These recommendations will then be shared at a public information meeting/workshop for discussion and consensus building.

TASK 6: CORRIDOR IMPROVEMENT PLAN DEVELOPMENT AND IMPLEMENTATION PLAN

6. A. Prepare Corridor Improvement Plan

The FHI Team will prepare a Corridor Improvement Plan for the study area. The text component of the Plan will describe how sub-areas of the study area will change over time and include tables that quantify projected changes in land and building use. Graphics will describe the phased changes of land use, building use, and intensity of development. More detailed map plans and diagrams, identifying specific transportation system improvements, will be developed for up to six (6) locations within the study area.

The following areas will be addressed in the Plan:

- Land Use Management and Marketing for Economic Development
- Transit, Bicycle, and Pedestrian Improvements
- Highway and Intersection Improvements
- Safety Improvements
- Traffic Calming, Streetscape, Signage, and Landscape
- Right-of-Way Impacts
- Preliminary Assessment of Environmental Issues
- Visualization of Proposed Transportation Improvements

The FHI Team will facilitate both TAC and a public review and discussion of the Draft Route 7 Corridor Improvement Plan. The FHI Team, will present a draft of the Corridor Improvement Plan at a public information meeting facilitate public review, and receive comments.

Develop Implementation Plan: As part of the development of the Corridor Improvement Plan, the FHI Team will prepare an implementation plan to facilitate putting the recommendations into action. The FHI Team will assess the priority and appropriate phasing of plan elements based on input from the TAC. The FHI Team will also prepare “order-of-magnitude” cost estimates for Plan’s transportation system recommendations and will identify potential funding resources for the implementation of Corridor Improvement Plan elements.